

Initial Project Startup

The assessment team, consisting of architectural, mechanical and electrical consultants, met with representatives of the Kentucky State University-Frankfort responsible for Kentucky State University maintenance and the owners Building Superintendent. The assessment process was reviewed and problem areas were discussed. Discussions were conducted to ascertain particular problems previously encountered, corrective solutions used and their effectiveness, and anticipated future projects.



Cost Models

Cost models were established for each building type and each site component. **Cost models** are defined as a set of systems data that, in aggregate, represent the construction of a specific asset type. **Cost models** store the replacement cost of building systems, the systems expected life, and the percent of the system renewed at the end of the lifecycle. The costs and lifecycle durations are based on industry standards such as RS Means and BOMA as well as a library of historical data collected by VFA on similar projects. Life expectancies are adjusted appropriately for each specific geographical area and operating environment. During the assessment, the team records information necessary to compile the **cost model**.

Replacement Value

The **cost models** are used to calculate the replacement value of an asset. The **cost model** aggregates the cost per square foot for each of the **cost model** components to create a total cost per square foot for the asset. Multiplying this total cost per square foot by the gross square footage of the asset equals the replacement value of the asset. This replacement value does not include site acquisition and development costs, soft costs such as design management, construction management, site utilities, procurement, contingencies, etc.

Building Survey

~~Percent Deficient~~

The assessment team toured each of the Kentucky State University -Frankfort and noted any systems with **deferred maintenance**. The extent of the **deferred maintenance** was estimated system by system by entering a ~~percent deficient~~ in the software lifecycle data. Deficient conditions are defined as a system or component which is unsafe, broken, does not conform to current codes, no longer performs the function to which it was intended and/or has exceeded its useful life.

Systems Conditions – ~~Percent Used~~

In addition to their observation and recording of **deferred maintenance**, the assessment team also collected information on the current effective age of each system within the buildings. This system condition is defined as **the percentage of the system's life that has been consumed at the time of the inspection**. The **percent used** value, along with the expected life and cost of each system, determines future capital renewal requirements. For example, a roof with an expected 20-year lifespan that has **a system condition of 75%** means that it is **75% through its useful life** and is projected for replacement in 5 years. The process that the assessment team uses in establishing the systems condition is based on their years of professional experience dealing with building systems. 